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To:	Name:	Rajiv P. Patel
	Company:	Fenwick & West LLP
	Fax Number:	6509385200
	Voice Phone:	650-335-7607
From:	Name:	ZIAUL CHOWDHURY
	Voice Phone:	571-270-7750

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ATT: RAJIV P. PATEL (Attorney at Law)  
Voice No. 650-335-7607

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THIS LISTING OF CLAIMS WILL REPLACE ALL PRIOR VERSIONS, AND LISTINGS, OF CLAIMS IN THE APPLICATION.

1. (Currently Amended) An apparatus having a processor for converting software code of a source application on a source platform into software code of a target application on a target platform, the apparatus comprising:

an inputting means for accepting the source code of the source application to analyse business logic of the source application, obtaining User Interface (UI) details of the source application, receiving a validation scheme of a source front-end interface, obtaining (1) a definitions of a target back-end system, (2) existing test scripts to facilitate quality control of generated software code for the target application, (3) source code entry points to business processes, (4) target environment specification including the target platform, languages to be used, target database, coding standards, target architecture and framework, (5) third party components, (6) existing applications to be plugged with the target application, and (7) sample code for the target application;

an analysing means for analysing provided source schemes to create target schemes, analysing the business logic of the source application to create workflow diagrams that represent processes of the source application, identifying code segments of the source application, and analysing the target environment to generate a target architecture and associated technology;

a setting up means for generating a custom knowledge base for the software code conversion that is responsive to no existing knowledge base for particular migration existing, wherein the custom knowledge base comprises a relational database comprising source and target code patterns and attributes and residing on a non-transitory computer-readable storage medium;

a processing means for conversion of source code into a format of the target environment specification, using fuzzy rules, wherein the source code is passed through a knowledge engine for a plurality of iterations, the knowledge engine remains coupled to the custom knowledge base during the plurality of iterations for conversion of the source code into the format of the target environment specification, the knowledge base is updated to include additional structured information of the source platform and the source application with respect to the target platform and the target environment specification after each iteration to cause the knowledge engine to enhance source code conversion in subsequent iterations; and

a documenting means for generation of a report comprising a portion of the source code of the source application that is not converted automatically for manual conversion.

2. (Previously Presented)                      The apparatus in claim 1 wherein an existing knowledge base is provided for understanding the source application, the source platform, the target environment specification, and the target platform.

3. (Previously Presented)                      The apparatus in claim 1, wherein the processing means is further configured to extract the business logic and database schema of the source application systematically and logically and to convert them into a format specified for the target application.

4. (Previously Presented)                      The apparatus in claim 1, wherein the processing means is further configured to dynamically hatch new patterns to be used to convert the source code into the format of the target environment specification.

5. (Cancelled)

6. (Previously Presented)           The apparatus in claim 1, wherein the processing means is further configured to utilize neural networks to convert the source code into the format of the target environment specification.

7. (Currently Amended)           A method executable by a computer processor for converting software code of a source application on a source platform into software code of a target application on a target platform, the method comprising:

- accepting the source code of the source application to analyse business logic of the source application;
- obtaining User Interface (UI) details of the source application;
- receiving a validation scheme of a source front-end interface;
- obtaining (1) a definition of a target back-end system, (2) existing test scripts to facilitate quality control of generated software code for the target application, (3) source code entry points to business processes, (4) target environment specification including the target platform, languages to be used, target database, coding standards, target architecture and framework, (5) third party components, (6) existing applications to be plugged with the target application, and (7) sample code for the target application;
- analysing provided source schemes to create target schemes;
- analysing the business logic of the source application to create workflow diagrams that represent processes of the source application;
- identifying code segments of the source application;
- analysing the target environment to generate a target architecture and associated technology;

responsive to no existing knowledge base for the software code conversion existing, generating a custom knowledge base for the software code conversion, wherein the custom knowledge base comprises a relational database comprising source and target code patterns and attributes and residing on a non-transitory computer-readable storage medium;

converting the source code into a format of the target environment specification using fuzzy rules, wherein the source code is passed through a knowledge engine for a plurality of iterations, the knowledge engine remains coupled to the custom knowledge base during the plurality of iterations for conversion of the source code into the format of the target environment specification, the custom knowledge base is updated to include additional structured information of the source platform and the source application with respect to the target platform and the target environment specification after each iteration to cause the knowledge engine to enhance source code conversion in subsequent iterations; and

generating a report comprising a portion of the source code of the source application that is not converted automatically for manual conversion.

8. (Previously Presented)                      The method of claim 7, further comprising: dynamically hatch new patterns to be used to convert the source code into the format of the target environment specification.

9. (cancelled).

10. (Previously Presented)                      The method of claim 7, wherein converting the source code into a format of the target environment specification comprises:

11. (Previously Presented) The method of claim 7, wherein an existing knowledge base is provided for understanding the source application, the source platform, the target environment specification, and the target platform.
12. (Previously Presented) The method of claim 7, further comprising:  
extracting the business logic and database schema of the source application systematically and logically; and  
converting the extracted business logic and database schema of the source application into a format specified for the target application.
13. (Previously Presented) A non-transitory computer-readable storage medium encoded with executable computer program code for converting software code of a source application on a source platform into software code of a target application on a target platform, the computer program code comprising program code for:  
accepting the source code of the source application to analyse business logic of the source application;  
obtaining User Interface (UI) details of the source application;  
receiving a validation scheme of a source front-end interface;  
obtaining (1) a definition of a target back-end system, (2) existing test scripts to facilitate quality control of generated software code for the target application, (3) source code entry points to business processes, (4) target environment specification including the target platform, languages to be used, target database, coding standards, target architecture and framework, (5) third party

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components, (6) existing applications to be plugged with the target application, and (7) sample code for the target application;

- analysing provided source schemes to create target schemes;

- analysing the business logic of the source application to create workflow diagrams that represent processes of the source application;

- identifying code segments of the source application;

- analysing the target environment to generate a target architecture and associated technology;

- responsive to no existing knowledge base for the software code conversion existing, generating a custom knowledge base for the software code conversion, wherein the custom knowledge base comprises a relational database comprising source and target code patterns and attributes and residing on a non-transitory computer-readable storage medium;

- converting the source code into a format of the target environment specification using fuzzy rules, wherein the source code is passed through a knowledge engine for a plurality of iterations, the knowledge engine remains coupled to the custom knowledge base during the plurality of iterations for conversion of the source

code into the format of the target environment specification, the custom knowledge base is updated to include additional structured information of the source platform and the source application with respect to the target platform and the target environment specification after each iteration to cause the knowledge engine to enhance source code conversion in subsequent iterations; and

- generating a report comprising a portion of the source code of the source application that is not converted automatically for manual conversion.

14. (Previously Presented)                      The non-transitory computer-readable storage medium of claim 13, wherein the computer program code further comprising program code for:

   dynamically hatch new patterns to be used to convert the source code into the format of the target environment specification.

15. (Cancelled).

16. (Previously Presented)                      The non-transitory computer-readable storage medium of claim 13, wherein converting the source code into a format of the target environment specification comprises:

   utilizing neural networks to convert the source code into the format of the target environment specification.

17.(Previously Presented)                      The non-transitory computer-readable storage medium of claim 13, wherein an existing knowledge base is provided for understanding the source application, the source platform, the target environment specification, and the target platform.

18. (Previously Presented)                      The non-transitory computer-readable storage medium of claim 13, wherein the computer program code further comprising program code for:

   extracting the business logic and database schema of the source application systematically and logically; and

   converting the extracted business logic and database schema of the source application into a format specified for the target application.



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